

Claims

- [c1] 1. A system for applying spreadsheet and database operations to the cells of one or more original worksheets resulting in a new worksheet representative of spreadsheet and database operations, comprising:
a relational algebra engine for:
performing relational algebra operations contained in the original worksheets;
creating a temporary results table comprising the results of the performed relational algebra operations; and
creating a mapping table correlating the original worksheet cells with the temporary results table,
a re-mapping engine for:
adjusting spreadsheet operations that refer to the original worksheet cells to refer to the temporary results table; and
creating a re-mapped worksheet containing the adjusted spreadsheet operations and the results of the relational algebra operations, and
a computation engine for:
recalculating spreadsheet values that have been adjusted to create the new worksheet.
- [c2] 2. The system of claim 1 wherein a cell numbering scheme is applied to the new worksheet rather than a database naming scheme.
- [c3] 3. The system of claim 1 wherein universal resource identifiers (URI) can be to specify the location of one or more original worksheets.
- [c4] 4. The system of claim 1 wherein the relational algebra operations can simultaneously query the original worksheets and a separate database.
- [c5] 5. A method of applying spreadsheet and database operations to the cells of one or more original worksheets resulting in a new worksheet representative of spreadsheet and database operations, comprising:
performing relational algebra operations contained in the original worksheets;
creating a temporary results table comprising the results of the performed relational algebra operations;
creating a mapping table correlating the original worksheet cells with the

temporary results table;

adjusting spreadsheet operations that refer to original worksheet cells to refer to the temporary results table;

creating a re-mapped worksheet containing the adjusted spreadsheet operations and the results of the relational algebra operations; and recalculating spreadsheet values that have been adjusted to create the worksheet.

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| [c6] | 6. The method of claim 5 wherein a cell numbering scheme is applied to the new worksheet rather than a database naming scheme. |
| [c7] | 7. The method of claim 5 wherein universal resource identifiers (URI) can be used to specify the location of one or more original worksheets. |
| [c8] | 8. The method of claim 5 wherein the relational algebra operations can simultaneously query the original worksheets and a separate database. |
| [c9] | 9. A computer program product including a computer program for applying spreadsheet and database operations to the cells of one or more original worksheets resulting in a new worksheet representative of spreadsheet and database operations, the computer program comprising:
instructions for creating a temporary results table containing the results of relational algebra operations contained in the original worksheet cells;
instructions for creating a mapping table correlating the original worksheet cells with the temporary results table;
instructions for adjusting spreadsheet operations that refer the original worksheet cells to refer to the temporary results table;
instructions for creating a re-mapped worksheet containing the adjusted spreadsheet operations and the results of the relational algebra operations; and
instructions for recalculating spreadsheet values that have been adjusted to create the new worksheet. |
| [c10] | 10. The computer program product of claim 9 wherein the computer program further comprises instructions for providing a cell numbering scheme to the new worksheet rather than a database naming scheme. |

- [c11] 11. The computer program product of claim 9 wherein universal resource identifiers (URI) can be used to specify the location of one or more original worksheets.
- [c12] 12. The computer program product of claim 9 wherein the relational algebra operations can simultaneously query the original worksheets and a separate database.
- [c13] 13. A system for applying spreadsheet and database operations, to the cells of one or more original worksheets resulting in a new worksheet representative of spreadsheet and database operations, comprising:
means for performing relational algebra operations contained in the original worksheet cells;
means for creating a temporary results table comprising the results of the performed relational algebra operations;
means for creating a mapping table correlating original worksheet cells with the temporary results table;
means for adjusting spreadsheet operations that refer to original worksheet cells to refer to the temporary results table;
means for creating a re-mapped worksheet containing the adjusted spreadsheet operations and the results of the relational algebra operations; and
means for recalculating spreadsheet values that have been adjusted to create the new worksheet.
- [c14] 14. The system of claim 13 wherein a cell numbering scheme is applied to the new worksheet rather than a database naming scheme.
- [c15] 15. The system of claim 13 wherein universal resource identifiers (URI) can be used to specify the location of one or more original worksheets.
- [c16] 16. The system of claim 13 wherein the relational algebra operations can simultaneously query the original worksheets and a separate database.